

I claim:

1. A method of forming an openwork knitted fabric, comprising:

(a) providing a knitting machine having a plurality of needles mounted in axial needle slots in a needle cylinder at a spacing of at least 11 needles per inch, each of said needles having a hook formed in a top end of a needle shank and a latch pivotally mounted on the needle shank below the hook for opening and closing the hook, and including a deflector for deflecting a loop of yarn being formed by a needle into the vertical plane of an adjacent needle, and a needle cam mounted for reciprocal movement between first and second vertically-spaced positions;

(b) in the first position lowering successive needles by means of the needle cam to a position where the loop of yarn is released from a selected loop-forming needle and transferred to a transfer needle;

(c) in the second position lowering successive needles by the needle cam to a position where the loop of yarn is transferred to a transfer needle adjacent the selected loop forming needle without being released from the selected loop-forming needle to thereby form a no-run stitch in the knitted fabric;

(d) selecting a needle from which a loop is to be transferred;

(e) enlarging the loop on the selected needle by deflecting the loop out of the vertical plane of the selected needle laterally into the vertical plane of an adjacent needle while the adjacent needle is in a lowered, non-interfering position relative to the deflected loop;

(f) moving the adjacent needle upwardly into the enlarged loop;

(g) when the needle cam is in the first position, removing the selected needle from the deflected loop, whereby the loop is transferred to the adjacent needle thus creating an opening in the fabric; and

(h) when the needle cam is in the second position, retaining the deflected loop on the selected needle while the loop is also transferred to the adjacent needle thus creating an opening in the fabric.

2. A method according to claim 1, and including the step of forming a plurality of the openings in the fabric in accordance with a predetermined pattern.

3. A method according to claim 1, including the step of forming a fabric that has a diameter during formation of between 2.5 inches and 36 inches.

4. A method according to claim 1, including the steps of knitting the fabric with a stitch selected from the group consisting of plain stitch rib stitch, no-run stitch, float stitch, pineapple stitch, and plating stitch.

5. A method according to claim 4, and including the step of constructing the fabric of yarns selected from the group consisting of cotton, nylon, stretch nylon, acrylic, and polypropylene.

6. A method according to claim 4, and including the step of constructing the fabric of a blended yarn containing cotton and stretch nylon.

7. A method according to claim 6, and including the step of constructing the fabric on a machine having approximately 17 needles per inch and 30 courses per inch.

8. A method according to claim 7, and including the step of providing a cotton yarn that is a 40 denier singles yarn and a stretch nylon yarn that is a 70 denier singles yarn.

9. A method according to claim 4, and including the step of providing a fabric comprised of stretch nylon.

10. A method according to claim 9, and including the step of constructing the fabric on a machine having approximately 17 needles per inch and 40 courses per inch.

11. A method according to claim 10, the stretch nylon yarn is a 30/2 denier plied yarn.

12. A method according to claim 11, including the step of constructing the fabric on a machine having approximately 25 needles per inch and 60 courses per inch.

13. A method according to claim 11, wherein the stretch nylon yarn is a 15/2 denier plied yarn.

14. A method according to claim 13, and including the step of constructing the fabric on a machine having approximately 30 needles per inch and 70 courses per inch.

15. A method of forming an openwork tubular knitted fabric, comprising:
(a) providing a machine capable of fabricating a closely knitted, fine gauge fabric utilizing at least 11 needles per inch and having at least 25 courses per inch, wherein the fabric is characterized by a dense ground of loops sufficiently closed to prevent showthrough, and a predetermined pattern of holes defined by transferred stitches;

(b) providing a plurality of needles mounted in axial needle slots in a needle cylinder at a spacing of at least 11 needles per inch, each of said needles having a hook formed in a top end of a needle shank and a latch pivotally mounted on the needle shank below the hook for opening and closing the hook, and including a deflector for deflecting a loop of yarn being formed by a needle into the vertical plane of an adjacent needle, and a needle cam mounted for reciprocal movement between first and second vertically-spaced positions wherein;

(c) in the first position lowering successive needles to a position where the loop of yarn is released from a selected loop-forming needle and transferred to a transfer needle;

(d) in the second position lowering successive needles to a position where the loop of yarn is transferred to a transfer needle adjacent the selected loop forming needle without being released from the selected loop-forming needle to thereby form a no-run stitch in the knitted fabric;

(e) selecting a needle from which a loop is to be transferred;

(f) enlarging the loop on the selected needle by deflecting the loop out of the vertical plane of the selected needle laterally into the vertical plane of an adjacent needle while the adjacent needle is in a lowered, non-interfering position relative to the deflected loop;

(g) moving the adjacent needle upwardly into the enlarged loop;

(h) when the needle cam is in the first position, removing the selected needle from the deflected loop, whereby the loop is transferred to the adjacent needle thus creating an opening in the fabric;

(i) when the needle cam is in the second position, retaining the deflected loop on the selected needle while the loop is also transferred to the adjacent needle thus creating a no-run opening in the fabric.

16. A method according to claim 15, and including the step of forming the fabric into a garment selected from the group consisting of hosiery, shirts, panties, shorts and brassieres.

17. A method according to claim 16, and including the step of forming a predetermined pattern that is a regularly-spaced array of ventilation openings.

18. A method according to claim 17, and including the step of forming predetermined pattern that is a decorative pattern of openings representative of an object.